REMARKS/ARGUMENTS

In the specification, the paragraph [0001] including the title has been amended to correct minor editorial changes and to describe the invention more accurately. A replacement new page 1 with the corrections made is submitted herein with this paper.

Claims 1 and 2 have been canceled without prejudice.

Claims 3 to 8 have been amended as shown above in the **Listing of Claims**.

The rejection of Claim 1 in view of the Wood et al reference is overcome by the cancellation of the claim.

Applicant respectfully requests the Examiner to reconsider the pertinency of the cited references to the present invention. The system of the present invention is intended for training a student or a plurality of students the proper operation of the abacus in making a mathematical calculation. An abacus is a versatile instrument which when operated properly is capable of carrying out even very complex mathematical calculations. The counter beads must be operated in a sequence according to very strict rules in order that the mathematical calculation may be carried out quickly and correctly. The system of the present invention is primarily for training the student to carry out the mathematical calculation according to such strict rules correctly. The system not only ensures the solution is correct but also monitors the operation step of the abacus to arrive at the correct solution. None of the devices of the cited references is capable of providing such purposes.

The cited Wood et al reference shows a device in which the mathematical calculation is carried out with the numerical key board and the answer of the mathematical calculation is shown in a display 32. The movable objects 16 of the so called abacus with only 20 movable

disks are merely used for indicating the answer of very simple mathematical addition or division calculations with relation to visual physical objects. The disks may not be operated solely for providing the solution of the mathematical calculation and showing it on the display 32. Clearly, it is intended for an entirely different purpose than that of the present invention which is for training the student in operating the abacus correctly to arrive at the answer of any mathematical calculation acurately and quickly.

The cited Lee reference is an electronic abacus having a game function. The device may be connected to a computer for playing an electronic game. It is not intended for training the user to operate the abacus according the strict rules of the operation of the abacus for making a mathematical calculation quickly and correctly. The abacus portion of the device has some similarity to the broad structure the abacus of the present invention. However, it does not have the means to show and record the actual sequential movement of the beads to provide the required action for making a mathematical calculation. It is capable only to show the placing of the beads to indicate the end result of the game.

The cited Chizuko reference shows an electronic abacus having light-sensitive sensors provided on the spit 4 of the abacus such that the final positions of the beads after the abacus has been operated for making a mathematical calculation may be displayed as a numerical value in a CRT display 1. It does not have any means of converting the sequential movement of the beads to arrive at the final result and it may not be used as a training tool for training a student to learn how to use the abacus in a proper manner to arrive at the final result quickly and correctly.

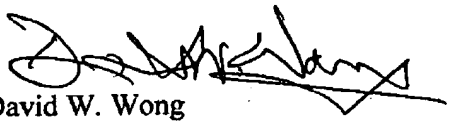
The cited Henderson reference discloses an electronic calculation device having a display of an image of an abacus. Mathematical calculation is carried out with the key board 58 and each numeral entry in the key board is visually indicated in the abacus image. Thus, the abacus image is merely used as a numerical display of the key board operation thus the calculation is not made

by the operation of the abacus. The device may not be used for training the user to operate the abacus according to the strict rules of operating an abacus to provide a mathematical calculation.

For the above reasons, it is respectfully submitted that the cited references considered either individually or in combination does not in any way suggest or infer the present system for displaying and recording the sequential movement of the counter beads of the abacus to arrive at the result of the mathematical calculation according to the strict rules of abacus operation. All the prior art devices merely display the result of the calculation. Furthermore, none the cited references infer or suggest the specific light and buffle means in combination with the counter beads to convert the sequential movement of the beads to digital data signal that may be processed and recorded by the computer for displaying the entire sequential movement of the beads on the image shown on the display monitor. The specific construction of the present system is now clearly defined in the amended claims. Accordingly, the claims are distinguishable from the cited references.

Favorable consideration of the invention as now defined in the amended claims and an early passage of the application to allowance of the application are therefore respectfully solicited.

Respectfully submitted,



David W. Wong
Agent For the Applicant
Reg. No. 26,408
Tel. No. 905-764-6388

Attachment: Replacement sheet of page 1 of the specification as amended.